

C1
non-starch polysaccharide, insoluble non-starch polysaccharide, fibre and protein nitrogen, said method comprising:

- (i) expressing in the storage organ of the plant a chimeric gene comprising a nucleotide sequence encoding a sulphur-rich protein placed operably in connection with a promoter sequence capable of conferring expression in said storage organ;
- (ii) determining the content or composition, or content and composition, of a metabolite in said storage organ, said metabolite selected from the group consisting of oil (fatty acid), starch, soluble non-starch polysaccharide, insoluble non-starch polysaccharide, fibre and protein nitrogen; and
- (iii) selecting a plant having a modified content or composition, or content and composition, of said metabolite in the storage organ thereof.

C2
21. (Twice Amended) A method of increasing the protein nitrogen content of seeds of a plant, said method comprising:

- (i) expressing in the seeds of the plant a chimeric gene comprising a nucleotide sequence encoding a sulphur-rich protein placed operably in connection with a promoter sequence capable of conferring expression in said seeds, said nucleotide sequence also positioned upstream of a transcription termination sequence;
- (ii) determining the level of protein nitrogen in the seeds; and
- (iii) selecting a plant having an increased protein nitrogen content in the seeds thereof.

28. (Twice Amended) A method of modifying the fatty acid content of seeds of a plant, said method comprising:
- (i) expressing in the seeds of said plant a chimeric gene that comprises a structural gene sequence encoding sunflower seed albumin (SSA) placed upstream of a transcription termination sequence and operably in connection with a promoter sequence capable of conferring expression on said structural gene in the seeds of said plants;
- (ii) determining the level of a fatty acid in the seeds; and
- (iii) selecting a plant having a modified fatty acid content in the seeds thereof.
33. (Twice Amended) A method of modifying the fatty acid composition of seeds of a plant, said method comprising:
- (i) expressing in the seeds of said plant a chimeric gene that comprises a structural gene sequence encoding sunflower seed albumin (SSA) placed upstream of a transcription termination sequence and operably in connection with a promoter sequence capable of conferring expression on said structural gene in the seeds of said plant;
- (ii) determining the fatty acid composition of the seeds; and
- (iii) selecting a plant having a modified fatty acid composition in the seeds thereof.

38. (Twice Amended) A method of decreasing the starch content of seeds of a plant, said method comprising:

- C4
- (i) expressing in the seeds of said plant a chimeric gene that comprises a structural gene sequence encoding sunflower seed albumin (SSA) placed upstream of a transcription termination sequence and operably in connection with a promoter sequence capable of conferring expression on said structural gene in the seeds of said plant;
 - (ii) determining the starch content of the seeds; and
 - (iii) selecting a plant having a decreased starch content in the seeds thereof.
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42. (Twice Amended) A method of modifying the amino acid composition of seeds of a plant, said method comprising:

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- (i) expressing in the seeds of said plant a chimeric gene that comprises a structural gene sequence encoding sunflower seed albumin (SSA) placed upstream of a transcription termination sequence and operably in connection with a promoter sequence capable of conferring expression on said structural gene in the seeds of said plant;
 - (ii) determining the amino acid composition of the seeds; and
 - (iii) selecting a plant having a modified amino acid composition in the seeds thereof.
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- C6*
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47. (Twice Amended) A method of modifying the fibre content of seeds of a plant, said method comprising:
- (i) expressing in the seeds of said plant a chimeric gene that comprises a structural gene sequence encoding sunflower seed albumin (SSA) placed upstream of a transcription termination sequence and operably in connection with a promoter sequence capable of conferring expression on said structural gene in the seeds of said plant;
 - (ii) determining the fibre content of the seeds; and
 - (iii) selecting a plant having a modified fibre content in the seeds thereof.
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52. (Twice Amended) A method of modifying the fibre quality of seeds of a plant, said method comprising:
- (i) expressing in the seeds of said plant a chimeric gene that comprises a structural gene sequence encoding sunflower seed albumin (SSA) placed upstream of a transcription termination sequence and operably in connection with a promoter sequence capable of conferring expression on said structural gene in the seeds of said plant;
 - (ii) determining the fibre quality of the seeds; and
 - (iii) selecting a plant having a modified fibre quality in the seeds thereof.
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Please enter a new claim as follows:

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101. (New) The method according to claim 1, wherein a plant having a modified content or composition, or a modified content and composition, of more than one metabolite in the storage organ thereof is selected, at least one of said metabolites

*C₈
cornstarch*

selected from the group consisting of oil (fatty acid), starch, soluble non-starch polysaccharide, insoluble non-starch polysaccharide, fibre and protein nitrogen.
